Microboard Processing Inc. MPI

Connecticut State Technology Extension Program

Microboard Processing, Inc. Increases Sales with Lean and ISO Certification

Client Profile:
Microboard Processing Inc., (MPI) provides electronics manufacturing services (EMS) in Seymour, Connecticut. Having evolved from a small repair services firm, MPI is now recognized as one of the premier providers for EMS solutions, and is currently one of the largest circuit board manufacturers in the Northeast. As a Tier 2 contract manufacturer, MPI provides a variety of turnkey solutions to the U.S. defense, medical, industrial and alternative energy industries with services ranging from quick-turn prototype services to high-volume, virtual manufacturing solutions. MPI clients range from small local businesses to Fortune 500 companies across the nation, with an emphasis on the Northeast region. Throughout the company's history, MPI has been committed to investing in human and plant resources to add capabilities for product development, mechanical, electrical and software design assistance, as well as in-circuit, functional, environmental, agency-compliant and analytical testing. MPI currently employs 205 people.

Situation:
MPI achieved ISO 9002 certification in 1994 and has since maintained compliance as an ISO-registered global EMS provider. Ted Labowski, Vice President of Quality at MPI, made the strategic business decision to expand the company's commitment to quality services beyond their already established quality system. He recognized the benefits of becoming registered to ISO 13485, a quality management standard for medical devices, and aimed to achieve certification within a six month time period. However, the time consuming nature of the work was identified as a primary obstacle to becoming registered in such a short amount of time. The MPI management team also expressed the importance of becoming registered to AS9100, a quality standard for the aerospace industry; these efforts were scheduled to follow the ISO 13485 certification. To reach the company's goal of certification and compliance to both standards, MPI would need to prepare all documentation materials and policy manuals to determine compliance. To facilitate this process, Labowski reached out to the Connecticut State Technology Extension Program (CONNSTEP), a NIST MEP network affiliate, for expertise in medical device and aerospace assurance.

Solution:
CONNSTEP and the MPI management team met to discuss the requirements and tasks involved with becoming certified to ISO 13845. Under the direction of CONNSTEP's management, Joe Azary, a third-party consultant, provided assistance throughout the certification process. A documentation review and on-site Gap Assessment was performed to determine the degree of MPI's compliance to the ISO 13945 standard. Since MPI had a history of compliance to ISO 9001 and demonstrated a foundation of Lean awareness, reviewing the company's quality system turned out to be a seamless process. Documentation was written for the ISO 18485 standard. The management team was trained on the changes that accompanied the new quality standard, and benefited greatly from the medical device expertise that Mr. Azary brought to the process. Following the consulting and training period,

MPI passed the ISO 13485 registration on the first attempt. MPI decided to pursue AS9100 certification with CONNSTEP's assistance. MPI's AS9100 documentation was drafted and incorporated ISO9001:2000 and ISO13485 portions into a Quality Manual. After training management and personnel on the new quality standard, MPI implemented the recommended changes and successfully passed the registration.
The company's achievements in quality paved the way for MPI to focus future efforts on implementing the principles and practices of Lean as a companywide initiative. MPI management sent two employees to CONNSTEP's program to develop the skills to apply Lean processes in and beyond the shop floor. They chose to focus on streamlining the incoming process to allow raw materials to be delivered to the floor more quickly. They realized that to accomplish their goal, they would need to employ a 5S (Sort, Set in Order, Shine, Standardize, Sustain) system and utilize visual management tools to standardize the factory floor layout and increase available floor space, with the objective to reduce WIP (Work in Process) locations, as well as processing and traveling time.

Results:
* Achieved ISO 13485 and AS9100 certification.
* Increased sales by $70 million.
* Reduced WIP locations from 22 to 8.
* Reduced lead time from 17 to 10 days.
* Decreased travel time from 3,000 feet to 994 feet.

Testimonial:
"CONNSTEP's assistance with ISO 13485 and AS9100 certification helped us pave the way for future lean initiatives at Microboard Processing Incorporated. Our involvement in the CICC course and knowledge of Lean tools led to implementing positive changes with measurable impacts throughout the organization."

Ted Lawbowski, Vice President, Quality